

1. A liquid crystal display apparatus comprising:

an illumination section having a light source and an optical guide member, and a reflection type LCD having a display region including a plurality of pixels for performing a display function, the optical guide member having first and second principal faces opposite to each other and first and second end faces opposite to each other,

wherein the reflection type LCD is disposed on or above the first principal face of the optical guide member,

wherein light from the light source enters the optical guide member at the first end face, exits the optical guide member at the first principal face so as to be incident on the reflection type LCD and reflected therefrom, reenters the optical guide member at the first principal face, and exits the optical guide member at the second principal face toward a viewer,

wherein the reflection type LCD includes a plurality of color composite pixels and a color filter layer having a regular array of a plurality of color filters, each of the plurality of color composite pixels including a plurality of color pixels, each of the plurality of color pixels being defined by a corresponding one of the plurality of color filters,

the plurality of color pixels having a pitch P1 along a first direction parallel to the light source, and the plurality of color composite pixels having a pitch P2 along a second direction perpendicular to the light source, the pitch P1 being smaller than the pitch P2, and

the light source being disposed in the vicinity of a side of the display region extending substantially in parallel to the first direction.

2. A liquid crystal display apparatus according to claim 1,

wherein the light source is disposed in an upper or lower direction of the display region so that the viewer is located in a direction of specular reflection to which light emitted from the illumination section is subjected at the reflection type LCD.

3. A liquid crystal display apparatus according to claim 1, wherein the light source is disposed near an end of the reflection type LCD where terminals for coupling the reflection type LCD to external display circuitry are provided.

4. A liquid crystal display apparatus according to claim 1, wherein the light source is disposed in the vicinity of the first end face of the optical guide member, and wherein a width  $t_1$  of the first end face and a width  $t_2$  of the second end face of the optical guide member substantially satisfy  $t_1 > t_2$ .

5. A liquid crystal display apparatus according to claim 1, wherein the optical guide member includes a periodic structure formed on the second principle face, the periodic structure including propagation portions and reflection portions alternating along a third direction.

6. A liquid crystal display apparatus according to claim 5, wherein the third direction coincides with neither the first direction nor the second direction.

7. A liquid crystal display apparatus according to claim 1, wherein the optical guide member includes an antireflection element provided on the first principle face.

8. A liquid crystal display apparatus according to claim 1, wherein a light shielding member is disposed corresponding to a connection or transition portion between the optical guide member and the light source.

9. An electronic device incorporating the liquid crystal display apparatus according to claim 1.

10. A liquid crystal display apparatus according to claim 2,  
wherein the light source is disposed in an upper direction of the display region of the reflection type LCD.

11. A liquid crystal display apparatus according to claim 10,  
wherein the optical guide member includes a periodic structure formed on the second principal face, the periodic structure including propagation portions and reflection portions alternating along a third direction, and

wherein the incident light from the light source is subjected to total reflection at the reflection portions.

12. A liquid crystal display apparatus comprising:

an illumination section having a light source and an optical guide member, and a reflection type LCD having a display region including a plurality of pixels for performing a display function, the optical guide member having first and second principal faces opposite to each other and first and second end faces opposite to each other,

wherein the reflection type LCD is disposed on or above the first principal face of the optical guide member, and

wherein light from the light source enters the optical guide member at the first end face, exits the optical guide member at the first principal face so as to be incident on the reflection type LCD and reflected therefrom, reenters the optical guide member at the first principal face, and exits the optical guide member at the second principal face toward a viewer,

wherein the optical guide member includes a periodic structure formed on the second principal face, the periodic structure including propagation portions and reflection portions alternating along a third direction at an angle from said light source, and

wherein the third direction coincides with neither a first direction parallel to the light source nor a second direction perpendicular to the light source, and is coplanar with said first and second directions.

13. A liquid crystal display apparatus according to claim 1, wherein the ratio P1:P2 is between 1:2.0 and 1:2.5.
14. A liquid crystal display apparatus according to claim 6, wherein the third direction of the periodic structure on the optical guide member is at an angle of about 10° to about 25° from the first direction.
15. A liquid crystal display apparatus according to claim 6, wherein the third direction of the periodic structure on the optical guide member is at an angle of about 55° to about 80° from the first direction.